

CLAIMS

1. Production method for an absorbent fiber product, according to which
 - a parent fiber product is prepared comprising fibers that, on the one hand, lie at a statistical distance from one another and, on the other hand, make contact with one another at contact pointscharacterized by the fact that
 - the parent fiber product is treated with a fluid medium in such a way that the fibers are at least partially wetted,
 - the fluid medium is rapidly evaporated by irradiation between the fibers, so that the evaporation pressure generated by the evaporating fluid medium has a kinematic effect on the fibers, which increases the distance between them.
2. Production method in accordance with claim 1 characterized by the fact that the parent fiber product is exposed to vapor deposition and/or vapor saturation with by fluid medium in the form of vapor.
3. Production method in accordance with claims 1 or 2 characterized by the fact that the parent fiber product is wetted or saturated by the fluid medium in the form of an emulsion.
4. Production method in accordance with one of claims 1 to 3 characterized by the fact that the fibers are homogeneously wetted.
5. Production method in accordance with one of claims 1 to 4 characterized by the fact that the kinematic effect on the fibers compacts them on the contact points.
6. Production method in accordance with one of claims 1 to 5 characterized by the fact that the fluid medium is rapidly evaporated by microwave radiation as the fibers are subjected to high power density microwave radiation within a short exposure time.

7. Production method in accordance with claim 6 characterized by the fact that the microwave radiation comprises wavelengths of between 1000 nm and 1000 μm .
8. Production method in accordance with claim 6 characterized by the fact that the microwave radiation comprises wavelengths that are absorbed less by the fibers than by the fluid media.
9. Production method in accordance with claim 6 characterized by the fact that the exposure time is between 1 μs and 1000 ms.
10. Production method in accordance with claim 6 characterized by the fact that the power density is between 10^3 W/mm^2 and 10^6 W/mm^2 .
11. Production method in accordance with one of claims 1 to 10 characterized by the fact that
in an additional process step the time period between, on the one hand, the wetting of the fibers with the fluid medium
and,
on the other hand, the rapid evaporation of the fluid medium
is adjusted in a targeted manner so the scope of a diffusion of the fluid medium is directed in between and/or into the fibers.
12. Production method in accordance with one of claims 1 to 11 characterized by the fact that in yet another process step, subsequent to the rapid evaporation of the fluid medium, the parent fiber product is treated with a fluid fixative.
13. Absorbing fiber product produced in accordance with one of the above claims characterized by the fact that the fiber product is a hygiene fiber product.
14. Absorbing fiber product produced in accordance with claim 13 belonging to the group consisting of: paper toweling, toilet paper, tissues.